



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,418	07/18/2003	Patrice Onno	01807.002407.	2799

5514 7590 12/20/2006
FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

YALEW, FIKREMARIAM A

ART UNIT	PAPER NUMBER
----------	--------------

2136

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/621,418	Applicant(s) ONNO ET AL.	
	Examiner Fikremariam Yalew	Art Unit 2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/28/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-35 have been examined.

Claim Objections

2. Claims 30-33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.
5. Claims 1,10,18,27 are directed to a method of transforming a digital signal. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory classes listed in 35 USC 101. The claimed steps do not result in a tangible result. Claims 1,10,18,27 are rejected as being directed to an abstract idea. (i.e., producing non tangible result)[Tangible requirement does require that the claim must

Art Unit: 2136

recite more than 101 judicial exceptions to produce a real world result, Benson, 409 U.S. at 71-72, 175 USPQ at 676-77]. Claims 2-9,12-17,19-26,28-35 are rejected as the same reason as the above claims because they are dependent claims of 1,10,18,27.

6. Claims 34,35 are directed to a method of transforming digital signal. The examiner respectfully asserts that the claimed subject matter does not fall within the statutory class listed in 35 USC 101. Claims 34,35 are directed to functional descriptive material (i.e., software). Claims 34,35 are rejected as being directed to functional descriptive material (i.e., computer program)

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-4,9-13,18-21,26-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Charrier et al (hereinafter referred as Charrier) US Patent 6,501,860

9. As per claim 1,18,28,30,32,34: Charrier teaches a method/apparatus/computer program/device of transforming a digital signal for it to be transmitted, the signal being decomposed into several regions each containing digital data, the signal comprising header data specific to each region and which comprise at least one part representing

Art Unit: 2136

the amplitude of the data of the region considered (See Fig 8 steps E1, E2 and col 1 lines 13-28 and Fig 1), wherein the method comprises a step of modifying among the header data specific to at least one region of the signal, the part of the header data representing the amplitude of the data of the region considered (See Fig 8 steps E3 and Fig 10 step 50 a and col 4 lines 11-34).

10. As claim 2,19: Charrier teaches a method wherein the digital data of the signal being digital samples representing physical quantities (col 9 lines 50-53 and col 10 lines 11-36), the part of the header data representing the amplitude of the samples of the region considered provides a number of bitplanes according to which the amplitudes of the samples are encoded based on the difference between, on the one hand, a number of so-called reference bitplanes, depending on the signal and which is deduced from information present in the signal and, on the other hand, a number of zero bitplanes which is contained in said part of the header data (See Fig 10 steps 2a,4a,50a and col 10 lines 11-63).

11. As per claim 3,20: Charrier teaches a method wherein the modification step provides for modifying the number of zero bitplanes (col 16 lines 3-8).

12. As per claim 4, 21: Charrier teaches a method wherein the modification step provides for increasing the number of zero bitplanes (col 16 lines 3-8).

13. As per claim 9: Charrier teaches a method wherein it comprises a step of transmitting the signal so transformed (See Fig 2 step 4).

14. As per claims 10,27,29,31,33,35: Charrier teaches a method/device/computer program of transforming a digital signal decomposed into a plurality of regions each

Art Unit: 2136

containing digital data, the signal comprising header data specific to each region and which comprise at least one part representing the amplitude of the data of the region considered, wherein the method comprises the following steps: receiving the signal of which the part of the header data representing the amplitude of the data of at least one region has undergone a modification before transmission of said signal(0029-0030 0148-0152), modifying in reverse that modified part of the header data in order to restore said unmodified part of the header data of the signal(See 0239-0242 and Fig 2).

15. As per claim 11: Charrier teaches a method wherein the digital data of the signal being digital samples representing physical quantities (0013), the part of the header data representing the amplitude of the samples of the region considered provides a modified number of bitplanes according to which the amplitudes of the samples are encoded based on the difference between, on the one hand, a number of so-called reference bitplanes, depending on the signal and which is deduced from information present in the signal and, on the other hand, a modified number of zero bitplanes which is contained in said part of the header data(See 0013-0017, 0145-0148).

16. As per claim 12: Charrier teaches a method wherein the step of reverse modification provides for modifying the modified number of zero bitplanes (col 16 lines 3-8).

17. As per claim 13: Charrier teaches a method wherein the step of reverse modification provides for reducing the modified number of zero bitplanes (col 16 lines 3-8).

Art Unit: 2136

18. As per claim 26: Charrier teaches a device wherein it comprises means for transmitting the signal so transformed. (See Fig 2 step 4)

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 5-8,14-17,22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Charrier et al (hereinafter referred as Charrier) US Patent 6,501,860 B1 in view of Inoue et al (US Patent No 7,003,666 B1).

21. As per claim 5,14,22: Charrier teaches claims 1,10,18 as recited above. Charrier does not explicitly teach a method wherein the modification step makes use of at least one transformation key Ku. However Inoue teaches a method wherein the modification step makes use of at least one transformation key Ku. (See abstract). Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the teaching method of Charrier to include the modification step makes use of at least one transformation key Ku. This modification would have been obvious because a person having ordinary skill in the art would have been motivated to do so, as suggested by, Inoue (col 5 lines 1-2) in order to extracting the authentication data thereby enhance the security of the system.

Art Unit: 2136

22. As per claim 6,15,23: the combination of Charrier and Inoue teach a method wherein the transformation key Ku depends on said at least one region considered. (See Inoue Fig 1 step 13).

23. As per claim 7,16,24: the combination of Charrier and Inoue teach a method wherein the modification step involves in particular the generation of a pseudo-random sequence based on the transformation key Ku (See Inoue abstract).

24. As per claim 8,17,25: the combination of Charrier and Inoue teach a method wherein it comprises a step of transmitting the transformation key Ku (See Fig 8 and col 14 lines 47-57).

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO 892.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fikremariam Yalew whose telephone number is 5712723852. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Moazzami Nasser, can be reached on 5712738300. The fax phone number for the organization where this application or proceeding is assigned is 571-272-4195.

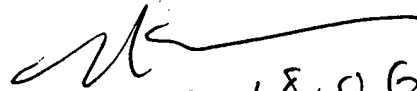
Art Unit: 2136

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Fikremariam Yalew
12/18/2006
FA

Art Unit 2136

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100


12,18,06